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Neil Berinstein

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EXAMINER

NGUYEN, QUANG

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### **DETAILED ACTION**

Claims 1-10, 36-37 and 63-66 are pending in the present application, and they are subjected to the following restriction.

#### ***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-10 and 64-66, drawn to an expression vector comprising the nucleic acid sequence as illustrated in SEQ ID NO:5 or a fragment thereof.

Group II, claims 36-37, drawn to an isolated peptide derived from BFA5 as shown in Table X or XI; and a method for immunizing a host against the tumor antigen BFA5 using the same peptide.

Group III, claim 63, drawn to an antibody having the ability to bind the amino acid sequence of SEQ ID NO:6 or a fragment thereof.

The technical feature linking Groups I-III appears to be that they all relate to BFA5 or a fragment thereof.

However at the effective filing date of the present application (4/15/03), at least Jager et al. (WO 01/47959; Cited by the instant application) already cloned the nucleotide sequence BFA5 that was designated NYBR-1 with SEQ ID NO:23 (see at least examples 11-16).

Therefore, the technical feature linking the inventions of Groups I-III does not constitute a special technical feature as defined by PCT Rule 13.2, as it does not differentiate the claimed subject matter as a whole over the prior art. Since according to Rule 13.2 PCT the presence of such a common or corresponding special technical feature is an absolute prerequisite for unity to be established, and given that there does not appear to be any other technical feature common to the claimed subject matter as a whole which might be able to fulfill this role, the currently claimed subject matter lacks unity of invention according to Rule 13.1 PCT.

Consequently, the claimed subject matter is restricted into the above Groups of Inventions for the following reasons.

The currently claimed subject matter (Inventions of Groups I-III) lacks unity of invention according to Rule 13.1 PCT for the following reasons.

The compositions in Groups I-III differ one from the others because they are structurally and chemically different as well as having different properties one from the others. For example, the composition of Group I is made up of nucleotide residues; the composition of Group II is made up of amino acid residues; and the antibody of Group III is composed of a particular amino acid sequence having the ability to bind the amino acid sequence of SEQ ID NO:6 or a fragment thereof.

Because the currently claimed subject matter lacks unity according to Rule 13.1 PCT for the reasons set forth above, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

***Species restriction***

**A. Should Applicants elect Group I,** this application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

(a) vaccinia, (b) NYVAC, (c) avipox; (d) canarypox; (e) ALVAC; (f) ALVAC(2); (f) fowlpox; (g) TROVAC; (h) adenovirus; (i) retrovirus; (j) herpesvirus; (k) adeno-associated virus; and (l) plasmid vector.

The claims are deemed to correspond to the species listed above in the following manner:

The claims are directed to an expression vector comprising the nucleic acid sequence as illustrated in SEQ ID NO:5 or a fragment thereof as well as an expression vector comprising a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO:6 or a fragment thereof.

The following claim(s) are generic: at least claims 1 and 64.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

Each of the above listed vector species is different structurally as well as different properties one from the others. Each different structure can be considered to be a “special technical feature” and therefore the above listed species lack the same or corresponding special technical features.

**B. Should Applicants elect Group II**, this application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

***A single specifically named peptide shown in either Table X or XI*** (The examiner notes that neither Table X nor Table XI is present in the specification of the as-filed US application).

The claims are deemed to correspond to the species listed above in the following manner:

The claims are directed to an isolated peptide derived from BFA5 as shown in Table X or XI.

The following claim(s) are generic: at least claim 36.

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The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

Each of the isolated peptide in either Table X or XI is different structurally in the primary sequence as well as different properties one from the others. Each different structure can be considered to be a "special technical feature" and therefore the above listed species lack the same or corresponding special technical features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang Nguyen, Ph.D., whose telephone number is (571) 272-0776.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Joseph T. Voitach, Ph.D., may be reached at (571) 272-0739.

**To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1633; Central Fax No. (571) 273-8300.**

**Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.**

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/QUANG NGUYEN, Ph.D./

Primary Examiner, Art Unit 1633

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